

DATE: June 21, 1991

TO: Office of Water Programs Engineering Staff

THROUGH: Allen R. Hammer, P.E., Director
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SUBJECT: Water - Procedure - Surveillance - Bacteriological Sampling Site Reports
(BSSR)

- I. GENERAL The Total Coliform Rule calls for all waterworks to have in place a formal written Bacteriological Sampling Site Plan. We have renamed these Bacteriological Sampling Site Reports (BSSR) to avoid confusion in our time accounting. The BSSR's must be reviewed and approved by our Field Offices.
- II. CRITERIA The following minimum basic criteria will serve as the standard against which these BSSR's will be evaluated.

WATERWORKS < 3301 POPULATION:

1. A minimum of 3 sample locations shall be identified for each sample required per month. These sample locations must be **representative** of conditions in the waterworks and must be assigned an identifying number.
2. Upstream and downstream repeat sample locations shall be identified with address and identifying number. Primary sample locations cannot be the last service on a dead end line.
3. A distribution system map with each sample location identified shall be included. This map does not have to be to scale so long as it accurately portrays the distribution system and the representative nature of the sample locations.
4. The method of rotating sample locations from month to month shall be addressed.

WATERWORKS > 3300 POPULATION:

1. A minimum of 12 sample locations shall be identified in general terms on a distribution system map; however, each

large waterworks shall be evaluated on a case by case basis to determine the number of sample locations needed to assure **representative** sampling.

2. The method that will be used to select specific sample locations and repeat sample locations shall be included. The method shall include the designation of specific repeat sample locations prior to any use of a sample location.
3. The method of rotating sample locations from month to month shall be addressed. It is acceptable to use a sample location more than once per month if that location otherwise meets the waterworks criteria for representative sampling.

REPRESENTATIVE SAMPLING:

1. Sample locations shall be selected to be representative of all significant conditions that exist in a water distribution system. Consideration shall be given to such conditions as:
 - Main lines
 - Branch lines
 - Loops
 - Dead ends
 - Storage tanks
 - Pipe materials
 - Age and condition of pipe
 - Water use
2. Select accessible, well-used, conventional faucets.
3. Select only those locations with readily identifiable repeat sample locations available.

NTNC and NON-COMMUNITY WATERWORKS:

For waterworks with extremely limited distribution systems, an individual tap may be designated a sample location. Such waterworks may not have sufficient acceptable sample taps to meet all of the above requirements. Exceptions are appropriate if documented.

III. ACCOUNTING (time sheets)

- A. Time spent reviewing BSSR's shall be recorded as Water - Reports.
- B. BSSR's shall be counted as Water - Reports.

IV. EXAMPLE FORMAT - see attached

BACTERIOLOGICAL SAMPLE-SITING REPORT

Name of Water System:

PWS ID:

Address:

Purpose: The purpose of this sample-siting plan is to identify specific bacteriological sample locations which are representative of the water quality throughout the distribution system.

Sample-Siting Plan:

- 1) The _____ PWS is currently required to collect _____ water sample(s) for coliform analysis each month(quarter). Three different sampling locations are identified for each required sample for a total of _____ locations.
- 2) The _____ sample locations are identified below and are shown of the attached system piping map.
 - No 1 = >
 - No 2 = >
 - No 3 = >
 - No 4 = >
 - No 5 = >
 - No 6 = >
 - No 7 = >
 - No 8 = >
 - No 9 = >
 - No 10 = >
 - No 11 = >
 - No 12 = >
- 3) Routine bacteriological samples will be collected from each of the above locations on a rotating basis.
- 4) These sample locations are chosen to allow for the collection of required upstream and downstream repeat sample within 5 service connections.

Owner Name: _____

Signature: _____

Title: _____

Date: _____

APPROVAL	BLOCK
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FOR